

Nuclear energy must be part of our solution for a balanced and secure energy mix.



The North American Young Generation in Nuclear unites young professionals who believe in nuclear science and technology and are working together throughout North America to share their passion for a field that is alive and kicking!

Visit www.na-ygn.org for more information.

Nuclear energy is...

Safe and Secure.

The nuclear industry's safety performance is among the best of any energy sector. Nuclear plants are the most secure industrial facilities, and they have been so since before 9/11.¹ The industry has invested \$2.1 billion above its ongoing security expenses to enhance its security and safety measures.¹

The Future.

The U.S. Department of Energy projects a 21 percent increase in electricity demand by 2030.² The nuclear industry has responded to the demand with 17 applications for 26 new reactors. These are currently being reviewed by the U.S. Nuclear Regulatory Commission.²

The federal loan guarantee program is a necessary component for building new nuclear power plants. Loan guarantees give the nuclear industry the financial stability to move forward with hiring and new-plant construction.

Reliable.

Since 1990, commercial U.S. nuclear power plant capacity factors have risen from 66 percent to nearly 92 percent in 2007.² When combined with power uprates, this results in an output increase equivalent to adding 29 new 1,000-megawatt power plants.

Nuclear power accounts for nearly 20 percent of all power production in the United States and 16 percent of all power production in the world.^{3,4}

Clean.

Nuclear energy is the world's largest source of emissions-free energy. It accounts for 74 percent of emissions-free energy in the United States.

One uranium nuclear fuel pellet the size of the tip of your little finger can produce the equivalent amount of energy provided by 1,780 pounds of coal, 149 gallons of oil or 17,000 cubic feet of natural gas.⁵

Cost-Competitive.

Since 2006, the average electricity production cost for nuclear power was 1.72 cents per kilowatt-hour, versus 2.37 cents for coal-fired plants, 6.75 cents for gas and 9.63 cents for petroleum.⁶ Nuclear is the only energy industry that accounts for all of its byproducts and includes in its price the cost of waste management and plant decommissioning.

Jobs.

Construction of new reactors will yield an estimated 610,000 jobs in the nuclear industry. Currently, there are competitive opportunities for technicians, engineers and skilled tradeworkers ready to be filled.⁷

^{1.} Nuclear Energy Institute, "Nuclear Power Plant Security," accessed 31 January 2009 from http://www.nei.org/filefolder/Nuclear_Power_Plant_Security_Feb2008.pdf

^{2.} U.S. Department of Energy, Energy Information Administration, accessed 31 January 2009 from http://www.eia.doe.gov/oiaf/aeo/index.htm

^{3.} Nuclear Energy Institute, "U.S. Electricity Generation Fuel Shares," accessed 31 January 2009 from http://www.nei.org/resourcesandstats/documentlibrary/reliableandaffordable energy/graphicsandcharts/uselectricitygenerationfuelshares/

^{4.} Nuclear Energy Institute, "World Nuclear Power Generation and Capacity," accessed 31 January 2009 from http://www.nei.org/resourcesandstats/documentlibrary/reliableandaffordableenergy/graphicsandcharts/worldnucleargenerationandcapacity/

^{5.} Nuclear Energy Institute, "Emissions Free Sources," accessed 31 January 2009 from http://www.nei.org/filefolder/Infographic_-_Emission_Free_Sources_2007.jpg

^{6.} Nuclear Energy Institute, "U.S. Electricity Production Cost," accessed 31 January 2009 from http://www.nei.org/filefolder/u.s_electricity_production_costs.ppt

Clean and Safe Energy Coalition, "Job Creation in the Nuclear Renaissance," accessed 31 January 2009 from http://www.cleansafeenergy.org/LinkClick.aspx?link=CASEnergywForewordpg.6.pdf&tabid=243